

Nikon

11 June, 2015
SDS22126-En-2

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product name IMMERSION OIL TYPE NF2

Company Identification

Supplier NIKON CORPORATION
Microscope Solutions Business Unit

Address 471, Nagaodai-cho, Sakae-ku, Yokohama-city, Kanagawa 244-8533 Japan

Telephone number +81-45-853-8608 /emergencies

Fax number +81-45-853-8485

e-mail Msqa.Manager@nikon.com

Manufacture Idemitsu Kosan Co., Ltd.
Safety, Environment & Quality Assurance Department

Product name of manufacture IMMERSION OIL LF

Address 1-1, Marunouchi 3-chome, Chiyoda-ku, Tokyo 100-8321 Japan

Telephone number +81-3-3213-3621 /emergencies

Fax number +81-3-5221-9582

Recommended use Oil for microscope, oil-immersion objective lenses

2. HAZARDS IDENTIFICATION

GHS Classification

Physical hazards

Flammable liquids Not classified

Health hazards

Acute toxicity (Oral) Not classified

Skin corrosion/irritation Not classified

Serious eye damage/eye irritation Not classified

Skin sensitization Category 1

Specific target organ toxicity - Single exposure Category 2

Specific target organ toxicity - Repeated exposure Category 2

Environmental hazards

Hazardous to the aquatic environment, short term (Acute) Category 2

Hazardous to the aquatic environment, long term (Chronic) Category 2

The hazards item without a mention is the not classified or cannot classify it.

GHS Label elements

Hazard pictogram(s)



Signal word

Warning

Hazard statement(s)

H303: May be harmful if swallowed.
 H317: May cause an allergic skin reaction.
 H371: May cause damage to organs (kidneys)
 H373: May cause damage to organs (kidneys, blood) through prolonged or repeated exposure.
 H401: Toxic to aquatic life
 H411: Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201: Obtain special instructions(SDS) before use.
 P202: Do not handle until all safety precautions have been read and understood.
 P210: Keep away from heat, hot surface, sparks, open flames and other ignition sources, No smoking.
 P233: Keep container tightly closed.
 P260: Do not breathe dust/fume/gas/mist/vapours/spray.
 P264: Wash hand thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only in a well-ventilated area.
 P273: Avoid release to the environment.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P302+352: IF ON SKIN: Wash with plenty of soap and water.
 P308+P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
 P332+P313: IF skin irritation occurs: Get medical advice/sttention.
 P405: Store locked up.
 P501: Dispose of contents/ container in accordance with local and regional regulations.

=====

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Substance or mixture: Mixture

Information on ingredients:

Chemical name	Wt. %	Chemical formula	EC No.	CAS No.
Trade secret				
1,4-Dimethyl-2-(1-phenylethyl) benzene	Ca. 10	C ₁₆ H ₁₈	228-201-0	6165-51-1

=====

4. FIRST AID MEASURES

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 If you feel unwell, get medical attention.

IF ON SKIN: Take off immediately all contaminated clothing.

Wash skin with running water and soap immediately.

Wash contaminated clothing before reuse

If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES: Rinse with clean water for at least 15 minutes and immediately get medical attention. Keep eyelids open with fingers so that eyeballs and all surfaces of eyes are flushed thoroughly.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention.

=====
5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

Fire foam, carbon dioxide or dry chemical powder

Unsuitable extinguishing media:

Discharging cylinder shape water from fire hose may lead to spread fire to the surroundings.

Special hazards arising from the substance or mixture

Combustible: This product burns but not easily ignited.

Toxic gas and/or fume may generate by combustion.

Advice for firefighters

Remove containers from fire area if it can be done without risk.

For initial fire, use dry powder, carbon dioxide, etc. For large fire, it is effective to use fire foam, etc to shut off air supply.

Cool surrounding facilities, etc. with water spray. Take action from upwind.

Wear air respirators, chemical protective clothing during fire fighting.

When extinguishing a fire in a confined area, be sure to wear self-contained breathing apparatus.

=====
6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Keep people away from and upwind of spill/leak.

Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

Use personal protective equipment.

Avoid contact with skin and eyes.

No flares, smoking or flame in area.

Environmental precautions

Do not release to the environment.

Be careful not to let it flow into rivers, etc., since adverse effects on the environment are concerned.

Methods and material for containment and cleaning up

For small spills, absorb with dry earth, sawdust, sand, etc. and collect into a closed container then dispose of them.

For large spills, dike with earth and sand, etc. to prevent further spills and cover liquid surface with foam and collect into an empty container as much as possible.

=====
7. HANDLING AND STORAGE

Handling

Technical measures

- Keep away from sources of ignition such as open flame, static discharge, electric sparks, etc.
- Use non-sparking tools.
- Do not inhale or swallow.
- Avoid contact with eyes and skin. Prevent leakage.
- Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Do not handle until all safety precautions have been read and understood.
- Do not eat, drink or smoke when using this product.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash hand thoroughly after handling.

Ventilation

- Use a local exhaust if dust or aerosol will be generated.

Storage**Technical measures**

- Ground all storage containers and use non-sparking tools, equipment.

Hazardous decomposition products

- Keep away from oxidizing agents.
- Store locked up.
- Keep container tightly closed and store in a well-ventilated place.

=====

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters

- Occupational Exposure Limits: Not specified.

Appropriate engineering controls

- Handle the product only under conditions where sufficient ventilation is provided and/or in a closed system. Install eye washer and safety shower near handling and storage area and display where they are.

Individual protection measures, such as personal protective equipment

- Eye/ face protection: Wear suitable safety glasses.
- Skin protection: Wear oil-resistant protective gloves and work clothing as appropriate.
- Respiratory protection: Wear gas mask for organic gas, air-supplied respirators, air respirators, etc.

=====

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear and colourless, slightly viscous liquid.
Odor:	Faint aromatic odor.
pH:	No information available.
Melting point/freezing point:	No information available.
Initial boiling point and boiling range:	$\geq 200^{\circ}\text{C}$
Flash point:	134°C
Evaporation rate:	No information available.
Flammability (solid, gas):	No information available.
Upper/lower flammability or explosive limits:	No information available.
Vapour pressure:	No information available.
Vapour density:	≥ 1.0

Relative density:	0.9169(15°C)
Solubility:	Insoluble in water.
Partition coefficient: n-octanol/water:	No information available
Auto-ignition temperature:	
Decomposition temperature:	No information available.
Viscosity:	No information available.

10. STABILITY AND REACTIVITY

Stability

Stable under normal temperatures and pressures.

Reactivity

This product is considered to be a non-reactive material under normal and anticipated storage and handling conditions.

Conditions to avoid

Sunlight, heat, open flames, high temperature sparks, static electrical charge, and other ignition sources.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

Nitrogen oxide, carbon monoxide, carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on product

Acute toxicity (oral): rat LD50 >2000 mg/kg.

Skin sensitization: Continuous or repeated skin contact may cause very mild allergic dermatitis in human.

Germ cell mutagenicity: (in vitro) Negatives in an AMES and a chromosome aberration studies.

Information on ingredients (1,4-Dimethyl-2-(1-phenylethyl) benzene):

Germ cell mutagenicity: (in vitro) Negatives in an AMES and a chromosome aberration studies.

Reproductive toxicity: No teratogenic effects were observed in an animal study.

STOT-single exposure: Decreased body weight gain in 1,000 mg/kg or higher dose levels, and effects on kidneys in 2,000 mg/kg or higher dose levels were observed in a rat single dose oral study.

STOT-repeated exposure: A result of the 28-day repeated oral dose toxicity study on rats.

NOEL <30 mg / kg / day, NOAEL = 30 mg / kg / day.

Extension of the activated partial thromboplastin time was observed by the basophilic renal tubule of the kidney, hematologic inspection by histopathological inspection in the 100mg/kg/day administrated group.

12. ECOLOGICAL INFORMATION

Toxicity

Information on product:

Acute toxicity: Fish (*Oryzias latipes*) 96hLC50 >100mg/L

Information on ingredients (1,4-Dimethyl-2-(1-phenylethyl) benzene):

Acute toxicity: Crustacea (*Daphnia magna*) 48-hr EC50 = 0.39 mg/L

Persistence and degradability:	No information available
Bioaccumulative potential:	No information available
Mobility in soil:	No information available
Other adverse effects:	Do not release the product into the environment.

=====

13. DISPOSAL CONSIDERATION

Waste treatment methods

Dispose of the remaining product and container in accordance with relevant laws and local regulation.

Wastes should be dealt by a licensed industrial waste trader and fully notify them of the information on hazardous properties and precautions regarding safe handling.

Avoid discharging waste water or cleaning water containing this product directly into rivers, etc.

Used container should be cleaned before disposal or recycled in a suitable manner which shall follow the relevant laws and local regulations.

=====

14. TRANSPORT INFORMATION

UN number:	3082
UN proper shipping name:	Environmental hazardous substances, liquid, N.O.S.
Transport hazard class(es):	Class 9 (Environmentally hazardous substances: aquatic environment)
Packing group:	III
Environmental hazards:	Applicable (marine pollutant)

Special precautions for user

Confirm no damages, corrosion and leakages of containers before transportation.

Load dangerous goods and containers in a way of no falling, overturning or damage.

During transportation, avoid exposure to direct sunlight and load containers in a way to prevent damage, corrosion and leakage.

Secure prevention of cargo collapse.

If a disaster occurs by accident, etc during transportation, notify fire station and other relevant agencies of it at first. Do not stack heavy objects on the top of cargos.

Transport in bulk according to Annex II of MARPOL 73/78 and IBC code

Not applicable

=====

15. REGULATORY INFORMATION

The product and its ingredients are not regulated by specific provisions related to protection of human health or the environment at EU level, e.g. not considered as SVHCs or POPs.

1,4-Dimethyl-2-(1-phenylethyl) benzene

EINECS: 228-201-0

TSCA: Listed

SVHC: Not listed

Other ingredients

TSCA: Listed

SVHC: Not listed

=====
16. OTHER INFORMATION

Update history

Date of issue: 11 November, 2014

Date of revision: 11 June, 2015

Disclaimer

The information above is believed to be accurate and represents the best information currently available to us.

However, we make no warranty of merchantability or any warranty, express or implied, with respect to such information, and we assume no liability resulting from its use.

Users should make their own investigations to determine the suitability of the information for their particular purposes.